

1610
apply to maintain the inherent oscillation frequency above 95 Hz when the electrode length of an excimer laser is 600 mm and the material comprising the rotating shaft is stainless (SUS). Here, d is the diameter of the rotating shaft as above while D represents the outer diameter of the fan.

If the fan diameter is 120 mm.. $d/D \geq 0.16$

If the fan diameter is 150 mm.. $d/D \geq 0.13$

Specifically, the inherent oscillation frequency could be maintained above 95 Hz if d/D .

In the Claims:

1
1. (Amended) A cross-flow fan for a discharge excitation gas laser to circulate laser gas between electrodes disposed within a laser chamber in which laser gas is circulated, comprising a hollow cylindrical fan body with side plates, a plurality of blades disposed in a circumferential array and extending axially between the side plates, and a rotating shaft connected to the side plates for rotating the fan body, wherein the rotating shaft of the cross-flow fan passes through the center of said fan.

2
3. (Amended) The cross-flow fan for discharge excitation gas laser of Claim 2, in which the outer diameter of the cross-flow fan D and the outer diameter of the rotating shaft d are sized in accordance with the relationship $d/D \geq 0.13$.

3
4. (Amended) The cross-flow fan for discharge excitation gas laser of Claim 1, in which the outer diameter of the cross-flow fan D and the outer diameter of the rotating shaft d are sized in accordance with the relationship $d/D \geq 0.13$.
